

DEPARTMENT OF ENERGY  
FY 1999 CONGRESSIONAL BUDGET REQUEST

Proposed Appropriation Language

Operation and Maintenance, Southwestern Power Administration

For necessary expenses of operation and maintenance of power transmission facilities and of marketing electric power and energy, and for construction and acquisition of transmission lines, substations and appurtenant facilities, and for administrative expenses, including official reception and representation expenses in an amount not to exceed \$1,500 connected therewith, in carrying out the provisions of Section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), as applied to the southwestern power area, [\$25,210,000] \$26,000,000, to remain available until expended; in addition, notwithstanding the provisions of 31 U.S.C. 3302, not to exceed [\$4,650,000] \$4,200,000 in reimbursements, to remain available until expended.

DEPARTMENT OF ENERGY  
FY 1999 CONGRESSIONAL BUDGET REQUEST  
SOUTHWESTERN POWER ADMINISTRATION

EXECUTIVE BUDGET SUMMARY

Mission

As part of the Department of Energy's (DOE) Strategic Plan in the Energy Resources and Corporate Management business lines, Southwestern Power Administration's mission is to market and reliably deliver Federal hydroelectric power, with preference given to public bodies and cooperatives. This will be accomplished by maximizing the use of Federal assets to repay the Federal investment while balancing power needs with the diverse interests of other water resource users and implementing public policy. The mission will be accomplished within an authorized staffing level of 186 Federal employees, 45 Contractor employees, budget authority of \$26,000,000, and reimbursable authority of \$4,200,000.

Southwestern markets power at wholesale rates primarily to publicly and cooperatively owned electric utilities. To integrate the operation of the Federal hydroelectric generating plants and to transmit power from U.S. Army Corps of Engineers (Corps) dams to customers, Southwestern maintains 1,380 miles (2,220 kilometers) of high-voltage transmission line, 24 substations, and 46 microwave and VHF radio sites. Southwestern's headquarters is in Tulsa, Oklahoma; the dispatch center is in Springfield, Missouri; and maintenance crews are based in Jonesboro, Arkansas; Gore and Tupelo, Oklahoma; and Springfield, Missouri.

Goals

- C Market and deliver all available hydroelectric power from Corps dams while balancing power needs with the diverse interests of other water resource users.
- C Operate and maintain a Federal transmission system to assure reliability of the interconnected system while meeting utility safety standards and encouraging competition through open access to facilities.
- C Maximize the use of Federal assets to repay the investment, including principal and interest, and operation and maintenance costs of the Federal power program.

## Objectives

- C Assure all power and energy is marketed, with preference to public bodies and cooperatives.
- C Provide economic benefits while assuring repayment of the Government's costs.
- C Provide environmental benefits by reducing the use of non-renewable resources.
- C Provide reliable deliveries of electric power to customers.
- C Operate the transmission system to assure efficient matching of generation to load.
- C Operate and maintain the transmission system safely.
- C Continue to provide open access to transmission facilities to encourage competition.
- C Assure that the Government's hydropower costs are repaid according to sound business principles.

## Strategy

In order to achieve safety and reliability while encouraging competition, Southwestern will accomplish the mission through four program activities: Operations and Maintenance, Construction, Purchased Power and Wheeling, and Program Direction. In addition, Southwestern will perform reimbursable work activities for Federal entities under the Economy Act of 1932 and non-Federal entities under authority provided in the annual appropriation language. The funding and staffing level is as follows:

Table 1. SITE FUNDING AND FEDERAL AND CONTRACTOR STAFFING PROFILE  
(in thousands)

	FY 1997 APPROPRIATION	FY 1998 CURRENT APPROPRIATION	FY 1999 BUDGET REQUEST
Operations and Maintenance	\$ 2,793	\$ 2 ,382	\$ 2,722
Purchased Power and Wheeling	\$ 1,095	\$ 57	\$ 59
Construction	\$ 6,054	\$ 6,752	\$ 6,817
Program Direction	<u>\$17,862</u>	<u>\$17,309</u>	<u>\$16,402</u>
TOTAL PROGRAM	\$27,804a/	\$26,500	\$26,000
Adjustment	\$ 2,594b/	\$ 1,290b/	\$ 0
Budget Authority	\$25,210	\$25,210	\$26,000
Federal Full-Time Equivalents (FTE)	175c/	189	186
Contractors	48	45	45

a/ Actual "Total Program" was \$27,148,000, \$656,000 short of the appropriated level.

b/ Use of prior year balances. Actual "Adjustment" for FY 1997 was \$1,938,000.

c/ Reflects actual FTE usage.

### FY 1997 Accomplishments (Results)

- Overall customer satisfaction rating was 88 percent, an improvement of six percent over FY 1996. However, within the customer satisfaction rating, the customer billing function did not improved sufficiently to meet the ten percent improvement goal.
- Average training hours per employee exceeded the ten percent goal but the average training cost per employee did not decrease by ten percent because the in-house Training Center was not yet fully operational due to late delivery of interactive computer equipment.
- Southwestern exceeded the goal for new hires from underutilized groups by two percent.
- While Southwestern had one organization that celebrated four years without a lost work day injury, the goal to not exceed 50 lost work days due to reportable accidents was not achieved, primarily due to two injuries.
- Southwestern successfully limited uncostered obligations to 27 percent, eight percent under the goal of 35 percent.
- Southwestern successfully met the goal to reduce indirect and overhead expenses by five percent.
- Southwestern successfully met the goal to dispose of 100 percent of all identified hazardous materials.
- Sixty-eight percent of Southwestern's employees participated in community related activities, exceeding the goal of 65 percent community involvement.
- Southwestern achieved a 93 percent rating on the System Average Interruption Duration Index (SAIDI), but did not achieve the 96 percent rating goal due to equipment malfunction.
- Southwestern attained an 87 percent rating of successful generation control, but did not meet the goal of 90 percent of all hours, as a result of problems with telemetering equipment, which is in need of upgrading.

### FY 1998 Accomplishments (Planned)

- Market 100 percent of firm capacity and associated energy to public bodies and cooperatives according to Southwestern's marketing plan.
- Produce \$408.6 million in economic benefits under average water conditions.
- Save 9.2 million barrels of oil, 2.7 million tons of coal, or 56 billion cubic feet of gas under average water conditions through hydropower generation.
- Achieve a SAIDI of not more than 150 minutes of total preventable outages per year for 90 percent of points of delivery.
- Achieve a power system control area compliance rating of "pass" using the North American Electric Reliability Council (NERC) performance standard.
- Maintain a safety record of a lost time injury frequency rate at or lower than the industry average.

#### FY 1998 Accomplishments (Planned) con't.

- Develop and implement open access tariffs.
- Perform annual Power Repayment Studies to assure that the cumulative status of repayment remains on schedule by filing new rates, if necessary.
- Achieve 40 percent ratio of cumulative principal payments to total repayable Federal investment based on average water conditions.
- Achieve a debt service coverage ratio of 1.0 based on average water conditions.
- Recover the full cost of the Civil Service Retirement System and Post-Retirement Health Benefits for Southwestern and U.S. Army Corps of Engineers power employees.

#### FY 1999 Accomplishments (Planned)

- The FY 1998 accomplishments are valid for FY 1999, subject to Southwestern's annual performance measurements review. The annual performance review in FY 1998 will serve to further align FY 1999 performance measures with Southwestern's Strategic Plan and the DOE Strategic Plan.
- Continue to recover the full cost of the Civil Service Retirement System and Post-Retirement Health Benefits Southwestern and U.S. Army Corps of Engineers power employees.

#### Major Changes

- Organization 2000 Plus continues to evolve. This downsizing/streamlining initiative is designed to assist Southwestern in meeting the challenges of a competitive electric utility environment by producing power at the lowest possible cost in accordance with sound business principles while maintaining reliability and safety in the delivery of Federal power.
- Consistent with the Secretary's Strategic Alignment Initiative, the DOE Fossil Energy, National Petroleum Technology Office is now co-located with and shares administrative support with Southwestern.
- Southwestern's FY 1999 program reflects a decrease in the Program Direction activity to increase efforts for system replacements in the Operation and Maintenance activity and the Construction activity due to prior years' budget reductions that have resulted in deferring needed replacement projects to the outyears.
- While Southwestern continues to provide open access to its transmission system, the existing rate structure is being modified to enhance the comparability with other utilities and encourage more efficient use of the transmission system. In FY 1998, Southwestern filed a tariff with the Federal Energy Regulatory Commission (FERC) that complies with the intent of FERC's Order 888. In addition, Southwestern is working with the regional electric reliability council, Southwest Power Pool, in implementing a region-wide tariff. In compliance with FERC Order 889, Southwestern will be posting rate schedules on the Open Access Same Time Information System.

- Through cooperative efforts with its customers and the Corps, Southwestern will continue to make use of its reimbursable authority and net billing capabilities to maintain the investment in the Federal power facilities and assure reliable electrical service to the region.

### Major Issues

- Reliability of the Federal power system is dependent on appropriations, staffing levels, and customer interest in financing power replacements.
- FERC Rules 888 and 889, and the National Energy Policy Act of 1992 significantly impact generation, transmission, and ancillary services provided by electrical utilities including Southwestern. Southwestern may have to allocate more resources to accommodate the new requirements.
- Southwestern continues to balance the interests of hydropower recipients with the interests of other water users by participating in numerous water resource committees and work groups to develop mutually beneficial operating plans; by funding research, plant modifications and monitoring in order to provide for both electrical production and competing user needs; and by educating the public through presentations and materials that provide the hydropower perspective.

### PERFORMANCE MEASURES/OUTPUTS:

Based on the annual performance measurements review for FY 1998, Southwestern developed three performance goals supported by measurable performance outputs.

The three performance goals and related outputs are as follows:

- C Market and deliver all available hydroelectric power as measured by the amount of firm capacity and associated energy delivered, economic benefits realized, and fossil fuels saved.
- C Operate and maintain the transmission system as measured by the NERC standard, the SAIDI, the lost time injury frequency rate and the implementation of open access tariffs.
- C Repayment of the Federal investment as measured by the cumulative status of repayment, the ratio of cumulative principal payments to total repayable Federal investment, and a 1.0 debt service coverage ratio.

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Michael A. Deihl  
Administrator, Southwestern Power Administration

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Date

**DEPARTMENT OF ENERGY**  
**FY 1999 CONGRESSIONAL BUDGET REQUEST**  
**SOUTHWESTERN POWER ADMINISTRATION**  
(Tabular dollars in thousands, Narrative in whole dollars)

**SOUTHWESTERN POWER ADMINISTRATION**

**PROGRAM MISSION**

As part of the Department of Energy's (DOE) Strategic Plan in the Energy Resources and Corporate Management business lines, Southwestern Power Administration's mission is to market and reliably deliver Federal hydroelectric power with preference given to public bodies and cooperatives. This will be accomplished by maximizing the use of Federal assets to repay the Federal investment while balancing power needs with the diverse interests of water resource users and implementing public policy. The mission will be accomplished within an authorized staffing level of 186 Federal employees, 45 Contractor employees, a budget authority of \$26,000,000, and reimbursable authority of \$4,200,000.

Southwestern markets power at wholesale rates primarily to publicly and cooperatively owned electric utilities. To integrate the operation of the Federal hydroelectric generating plants and to transmit power from the U.S. Army Corps of Engineers (Corps) dams to customers, Southwestern maintains 1,380 miles (2,220 kilometers) of high-voltage transmission line, 24 substations, and 46 microwave and VHF radio sites. Southwestern's headquarters is in Tulsa, Oklahoma; the dispatch center is in Springfield, Missouri; and maintenance crews are based in Jonesboro, Arkansas; Gore and Tupelo, Oklahoma; and Springfield, Missouri.

As in previous years, the budget supports the performance of work for others activities on a fully reimbursable basis. This authority reduces Southwestern's need for new appropriations while encouraging initiatives to maintain the investment in the Federal power system, assuring reliable delivery of power from Federal power facilities, and responding to emergency requests for assistance from customers. Federal reimbursable activity will be performed under the Economy Act of 1932. Non-Federal reimbursable authority is provided in the annual appropriation language.

Southwestern's program is divided into four program activities: Operations and Maintenance, Construction, Purchased Power and Wheeling, and Program Direction. These activities are described in their respective program performance summaries.

Goals

- C Market and deliver all available hydroelectric power from Corps dams while balancing power needs with the diverse interests of water users.
- C Operate and maintain a Federal transmission system to assure reliability of the system while meeting utility safety standards and encouraging competition through open access to facilities.



- C Maximize the use of Federal assets to repay the investment, including principal and interest, and operation and maintenance costs of the Federal power program.

### Objectives

- C Assure all power and energy is marketed with preference to public bodies and cooperatives.
- C Provide economic benefits while assuring repayment of the Government's costs.
- C Provide environmental benefits by reducing the use of non-renewable resources.
- C Provide reliable deliveries of electric power to customers.
- C Operate the transmission system to assure efficient matching of generation to load.
- C Operate and maintain the transmission system safely.
- C Continue to provide open access to transmission facilities to encourage competition.
- C Assure that the Government's hydropower costs are repaid according to sound business principles.

### PERFORMANCE MEASURES/OUTPUTS:

Based on the annual performance measurements review for FY 1998, Southwestern developed three performance goals supported by measurable performance outputs.

The three performance goals and related outputs are as follows:

- C Market and deliver all available hydroelectric power as measured by the amount of firm capacity and associated energy delivered, economic benefits realized, and fossil fuels saved.
- C Operate and maintain the transmission system as measured by the North American Electric Reliability Council standard, the System Average Interruption Duration Index, the lost time injury frequency rate, and the implementation of open access tariffs.
- C Repayment of the Federal investment as measured by the cumulative status of repayment, the ratio of cumulative principal payments to total repayable Federal investment, and a 1.0 debt service coverage ratio.

## SIGNIFICANT ACCOMPLISHMENTS AND PROGRAM SHIFTS:

- Organization 2000 Plus continues to be implemented. This initiative is designed to assist Southwestern in meeting the challenges of a competitive electric utility environment by producing power at the lowest possible costs while maintaining reliability and safety in the delivery of Federal power.
- While Southwestern continues to provide open access to its transmission system, the existing rate structure is being modified to enhance the comparability with other utilities and encourage more efficient use of the transmission system. In FY 1998, Southwestern filed a tariff with the Federal Energy Regulatory Commission (FERC) that complies with the FERC's Order 888. In addition, Southwestern is working with the regional electric reliability council, Southwest Power Pool, in implementing a region-wide tariff. In compliance with FERC Order 889, Southwestern will be posting rate schedules on the Open Access Same Time Information System.
- Through cooperative efforts with its customers, Southwestern is making use of its reimbursable authority and net billing capabilities to maintain and recover the investment in the Federal power facilities, and to assure reliable electrical service to the region.
- Consistent with the Secretary's Strategic Alignment Initiative, Southwestern is sharing facilities and administrative services with another DOE office.
- Southwestern's FY 1999 program reflects a decrease in the Program Direction activity to increase efforts for system replacements in the Operation and Maintenance activity and the Construction activity due to prior years' budget reductions that have resulted in deferring needed replacement projects to the outyears.
- Southwestern will continue to recover the full cost of the Civil Service Retirement System and Post-Retirement Health Benefits for Southwestern and U.S. Army Corps of Engineers power employees.

# SOUTHWESTERN POWER ADMINISTRATION

## PROGRAM FUNDING PROFILE

(Dollars in Thousands)

Sub-program	FY 1997 Current Appropriation	FY 1998 Original Appropriation	FY1998 Adjustments	FY 1998 Current Appropriation	FY 1999 Budget Request
Operations and Maintenance Operating Expenses	\$ 2,793	\$ 2,382	\$ 0	\$ 2,382	\$ 2,722
Purchase Power and Wheeling Operating Expenses	\$ 1,095	\$ 57	\$ 0	\$ 57	\$ 59
Construction Operating Expenses	\$ 6,054	\$ 6,752	\$ 0	\$ 6,752	\$ 6,817
Program Direction Operating Expenses	\$ 17,862	\$ 17,309	\$ 0	\$ 17,309	\$ 16,402
Subtotal, Southwestern Power Administration	\$ <u>27,804</u> <u>a/</u>	\$ <u>26,500</u>	\$ <u>0</u>	\$ <u>26,500</u>	\$ <u>26,000</u>
Adjustment	\$ <u>(2,594)</u> <u>b/</u>	\$ <u>(1,290)</u> <u>b/</u>	\$ <u>0</u>	\$ <u>(1,290)</u> <u>b/</u>	\$ <u>0</u>
TOTAL	\$ <u><u>25,210</u></u>	\$ <u><u>25,210</u></u>	\$ <u><u>0</u></u>	\$ <u><u>25,210</u></u>	\$ <u><u>26,000</u></u>

a/ Actual "Subtotal, Southwestern Power Administration" was \$27,148,000, \$656,000 short of the appropriated level.

b/ Use of prior balances. Actual "Adjustment" in FY 1997 was \$1,938,000.

### Public Law Authorizations:

Pub. Law 78-534, Flood Control Act of 1944

Pub. Law 95-91, DOE Organization Act of 1977, Section 302

Pub. Law 102-486, Energy Policy Act of 1992

# **SOUTHWESTERN POWER ADMINISTRATION**

## **PROGRAM FUNDING BY SITE**

	FY 1997 Current Appropriation	FY1998 Original Appropriation	FY 1998 Adjustments	FY 1998 Current Appropriation	FY 1999 Budget Request
<u>Laboratory/Plant/Installation</u>					
Southwestern Power Administration	\$ 27,804	\$ 26,500	\$ 0	\$ 26,500	\$ 26,000
Subtotal	\$ 27,804 <u>a/</u>	\$ 26,500	\$ 0	\$ 26,500	\$ 26,000
Adjustment	\$ <u>(2,594) b/</u>	\$ <u>(1,290) b/</u>	\$ 0	\$ <u>(1,290) b/</u>	\$
TOTAL	\$ <u><u>25,210</u></u>	\$ <u><u>25,210</u></u>	\$ <u><u>0</u></u>	\$ <u><u>25,210</u></u>	\$ <u><u>26,000</u></u>

a/ Actual "Subtotal" was \$27,148,000, \$656,000 short of authorized level.

b/ Use of prior year balances. Actual "Adjustment" in FY 1997 was \$1,938,000.

## SOUTHWESTERN POWER ADMINISTRATION

### OPERATIONS AND MAINTENANCE

#### I. Mission Supporting Goals and Objectives

This activity fulfills the requirements of Section 5 of the Flood Control Act to market and deliver reliable hydroelectric power in a clean and environmentally safe, cost-effective manner, in a 6-State regional area from 24 multi-purpose Federal dams operated by the U.S. Army Corps of Engineers.

As of September 30, 1997, cumulative repayable Federal investment, including replacements, \$1,067,000,000. Contingent on final FY 1997 audited financial statements, approximately \$403,500,000 is expected to be repaid, in addition to \$590,000,000 in interest. In FY 1997, Southwestern marketed 7.5 gigawatthours with a gross revenue production of \$106,600,000.

Estimates provided in this activity represent projected costs for service contracts, technical services, equipment, materials and supplies used in direct support of the operations and maintenance of the interconnected power system. In FY 1999, the Operations and Maintenance budget has increased by 14 percent primarily in the maintenance program to assure reliability. Because of Southwestern's streamlining and restructuring efforts through Organization 2000 Plus, and other cost saving efforts, requirements in Program Direction have decreased, allowing an increased effort in Operations and Maintenance.

#### II. Funding Table:

<u>Program Activity</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>\$ Change</u>	<u>% Change</u>
Operations and Maintenance	<u>\$ 2,793</u>	<u>\$ 2,382</u>	<u>\$ 2,722</u>	<u>\$+340</u>	<u>+14</u>
Total, Operations and Maintenance	<u>\$ 2,793</u>	<u>\$ 2,382</u>	<u>\$ 2,722</u>	<u>\$+340</u>	<u>+14</u>

III. Performance Summary:

Planned Accomplishments	FY 1997	FY 1998	FY 1999
<p>C Power Marketing provides for technical and economic studies in transmission and planning and protective relaying, environment, safety and health, water resources, communication, and maintenance in support of Southwestern's activities in Operations, Environment, and Maintenance.</p> <ul style="list-style-type: none"><li>- In FY 1997, major transmission planning studies completed included 13 Southwest Power Pool loadflow model updates, blackstart modeling, a comprehensive ten-year planning study, 4 Available Transmission Capability (ATC) updates, and 9 studies resulting from requests by Southwestern customers for interconnections or additions to Southwestern's transmission system. In addition, 25 relay coordination studies which support relay system modifications and assessments of substation and radio site grounding and surge protection systems were completed. Other studies completed included environmental assessments for asbestos, lead, used equipment oil, and oil spill response.</li><li>- In FY 1998, it is estimated there will be 23 Southwest Power Pool loadflow model updates, 1 dynamic stability model update, 2 short circuit model updates, 6 to 12 ATC updates, 25 relay coordination studies, and 5 to 10 studies resulting from requests by Southwestern customers for interconnections or additions to Southwestern's transmission system.</li><li>- In FY 1999, it is estimated there will be 23 to 30 Southwest Power Pool loadflow model updates, 1 dynamic stability model update, 2 short circuit model updates, 6 to 12 ATC updates, 25 relay coordination studies, and 5 to 10 studies resulting from requests by Southwestern customers for interconnections or additions to Southwestern's transmission system.</li></ul>	\$260	\$162	\$174

<p>C Operations provides for development and implementation of operational arrangements with competing water users.</p> <ul style="list-style-type: none"> <li>- In FY 1997, the Tennessee Valley Authority (TVA) completed 90 percent of a screening study for Table Rock and Norfolk. TVA completed piping modifications to the headcovers for all 12 units at Bull Shoals, Norfolk, and Tenkiller. The U.S. Geological Survey (USGS) completed the dissolved oxygen monitoring program for the White River Basin.</li> <li>- In FY 1998, TVA will complete feasibility level study for selected alternatives to improve downstream dissolved oxygen for Bull Shoals, Norfolk, and Table Rock projects. The USGS will complete the dissolved oxygen monitoring program for the White River Basin.</li> <li>- In FY 1999, the USGS will complete the dissolved oxygen monitoring program for the White River Basin. Through cooperative funding efforts with customers and competing users, begin development of the selected alternative for Bull Shoals to improve dissolved oxygen for releases from Bull Shoals.</li> </ul>	\$ 90	\$149	\$0
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<p>C Maintenance provides for day-to-day maintenance of Southwestern's 24 substations, 1,380 miles (2,220 kilometers) of high voltage transmission lines, and communication facilities of 46 radio/microwave sites.</p> <p>- <u>Substation Maintenance:</u></p> <ul style="list-style-type: none"> <li>- In FY 1997, work included replacement of nine oil circuit breakers with gas circuit breakers; installation of replacement electrical equipment to improve system reliability; completed essential general maintenance projects; reduction of 901 hours off the maintenance Management Information System, and, disposal of 25 polychlorinated biphenyl (PCB) contaminated equipment items.</li> <li>- In FY 1998, work includes replacement of six oil circuit breakers with gas circuit breakers; installation of 30 interchange and/or revenue meter replacements; installation of replacement electrical equipment, such as battery chargers, coupling capacitor voltage transformers, and potential transformers, to improve system reliability; complete essential general maintenance projects; and dispose of 24 PCB contaminated equipment items.</li> <li>- In FY 1999, work includes replacement of six oil circuit breakers with gas circuit breakers; installation of 30 interchange and/or revenue meter replacements; installation of replacement electrical equipment to improve system reliability; complete essential general maintenance projects; and dispose of 12 PCB contaminated electrical items.</li> </ul>	\$2,443	\$2,071	\$2,548
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<ul style="list-style-type: none"> <li>- <u>Line maintenance:</u></li> <li>- In FY 1997, purchased 81 wood poles, 148 crossarms, and 519 braces; completed 310 miles of right-of-way (ROW) clearing, including clearing the floor of ROW, side-clearing of the ROW, and 31 miles of herbicide application; and installed 54 miles of fiber optic cable.</li> <li>- In FY 1998, purchase an estimated 70 wood poles, 250 crossarms, 200 braces, and 75 fiberglass insulators; complete an estimated 350 miles of planned ROW clearing, including clearing the floor of the ROW, side-clearing the floor of the ROW, and estimated 100 miles herbicide application; install an estimated 18 miles of fiber optic cable; and perform vehicle repair and maintenance.</li> <li>- In FY 1999, purchase an estimated 70 wood poles, 54 steel poles, 431 wood crossarms, 54 steel crossarms, 252 wood braces, 54 steel braces, and 128 fiberglass insulators; complete an estimated 400 miles of planned right-of-way clearing, including clearing the floor of the ROW, side-clearing of the ROW, and 150 miles of herbicide application; and install an estimated 15.5 miles of fiber optic cable. In addition to the normal vehicle repair and maintenance, one special purpose vehicle will be refurbished.</li> </ul>			
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<ul style="list-style-type: none"> <li>- <u>Communication maintenance:</u></li> <li>- In FY 1997, completed replacement of Supervisory Control and Data Acquisition/Energy Management System (SCADA/EMS). Installed and configured Remote Terminal Units (RTUs) for monitoring and control purposes at the Truman Dam. Reconfigured three RTUs and associated SCADA/EMS equipment to accommodate new SCADA/EMS and connection by other utilities.</li> <li>- In FY 1998, reconfigure 15 RTUs and associated SCADA/EMS equipment to accommodate new SCADA/EMS communication protocol.</li> <li>- In FY 1999, reconfigure 20 RTUs and associated SCADA/EMS equipment to accommodate new SCADA/EMS communication protocol.</li> </ul>			
Program Total	\$2,793	\$2,382	\$2,722

Explanation of Funding Changes from FY 1998 to FY 1999:

Operations and Maintenance: Reflects increased efforts in right-of-way herbicide application (\$50,000), replacement (+\$477,000) of deteriorated poles and hardware with wood and steel structures (\$145,000), vehicle maintenance and refurbishment(\$130,000), equipment repair (\$92,000),and maintenance of the SCADA system(\$60,000).

## **SOUTHWESTERN POWER ADMINISTRATION**

### **PURCHASED POWER AND WHEELING**

#### **I. Mission Supporting Goals and Objectives:**

This activity provides for purchases of energy as necessary to supplement hydroelectric generation and wheeling services to meet contractual obligations. System Support Requirements are non-discretionary energy purchases necessary to supplement hydroelectric generation to meet system contractual obligations for delivering Federal power and energy. Southwestern relies on energy banks, to the extent they are available, and net billing arrangements to fulfill the contractual obligations under System Support Requirements. These alternative purchasing methods reflect approximately \$6 million annually for energy purchases that otherwise would have to be requested through appropriations. Other Contractual Requirements involve the purchase of wheeling services for power and energy delivered to customers not directly connected to Southwestern's transmission system.

#### **II. Funding Table:**

<u>Program Activity</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>\$ Change</u>	<u>% Change</u>
System Support Requirements	\$ 0	\$ 0	\$ 0	0	0
Other Contractual Requirements	<u>1,095</u>	<u>57</u>	<u>59</u>	<u>+2</u>	<u>+4</u>
Total, Purchased Power and Wheeling	<u>\$1,095</u>	<u>\$ 57</u>	<u>\$ 59</u>	<u>\$ +2</u>	<u>+4</u>

III. Performance Summary:

Planned Accomplishments	FY 1997	FY 1998	FY 1999
C System Support Requirements - Meet 100 percent of energy purchases during average hydropower generation through the use of energy banks, to the extent they are available, and net billing arrangements with customers.	\$0	\$0	\$0
C Other Contractual Requirements - Meet all power and energy obligations (other contractual requirements) required under contracts for sale of power and energy to utility customers. In late FY 1997, the majority of Southwestern's Oklahoma contracts expired and the renewal contracts did not include wheeling requirements. FY 1998 and FY 1999 reflect the remaining wheeling services still under contract.	\$1,095	\$57	\$59
Total Purchased Power and Wheeling	\$1,095	\$57	\$59

Explanation of Funding Changes from FY 1998 to FY 1999: None.

## SOUTHWESTERN POWER ADMINISTRATION

### CONSTRUCTION

#### I. Mission Supporting Goals and Objectives:

This activity provides for the construction, modification, and replacement of transmission, substation, switching, and communication facilities, and other power system equipment which enable Southwestern to market Federal hydropower in compliance with Federal mandates in the most efficient and cost effective manner, and to meet operational criteria required of it as a member of the Southwest Power Pool, the regional electric reliability authority. Southwestern is responsible to maintain and enhance power system safety and reliability, thereby assuring continued safe, reliable delivery of power to preference customers; to encourage new initiatives for more effective use of existing regional generation resources; and to participate with non-Federal interests in joint power projects of benefit to the Government. In addition to appropriated funds, Southwestern will use reimbursable authority and net billing arrangements to fund power system replacement projects to assure the reliability of the Federal power system.

#### II. Funding Table:

<u>Program Activity</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>\$ Change</u>	<u>% Change</u>
Transmission System Replacements	\$6,021	\$5,987	\$6,387	\$+400	+7
Transmission System Improvements	0	0	0	0	0
Capital Equipment Not Related to Construction	<u>33</u>	<u>765</u>	<u>430</u>	<u>-335</u>	<u>-44</u>
Total, Construction	<u>\$6,054</u>	<u>\$6,752</u>	<u>\$6,817</u>	<u>\$+ 65</u>	<u>+1</u>

### III. Performance Summary:

Planned Accomplishments	FY 1997	FY 1998	FY 1999
<p>C Transmission System Replacements</p> <ul style="list-style-type: none"><li>- Substation equipment replacements are planned to assure system reliability and reliable service to Southwestern's customers. System age coupled with environmental concerns necessitates orderly replacement before significant problems develop.</li><li>- In FY 1997, replacements included three circuit breakers, a disconnect switch at one site, instrument transformers at two sites, a station service transformer at one site, structure refurbishment at one site, and ten revenue meters/telemetry replacements.</li><li>- In FY 1998, replacements include three circuit breakers, a disconnect switch at one site, grounding and surge protection at five sites, structure refurbishment at two sites, and ten revenue meter/telemetry replacements.</li><li>- In FY 1999, replacements include ten circuit breakers, six duplex switch board relay panels at one site, a disconnect switch at one site, grounding and surge protection at five sites, structure refurbishment at two sites, and ten revenue meters/telemetry replacements.</li></ul>	\$6,021	\$5,987	\$6,387

<ul style="list-style-type: none"> <li>- Communication equipment replacements are planned to provide necessary improvements in system reliability and reduce maintenance and equipment costs.</li> <li>- In FY 1997, replacements included microwave radios at 3 sites, terminal equipment at 7 sites, and 70 miles of optical shield wire.</li> <li>- In FY 1998, replacements include microwave radios at 3 sites, 12 mobile radios, terminal equipment at 8 sites, and 115 miles of optical shield wire.</li> <li>- In FY 1999, replacements include 4 microwave radio sites, 21 mobile radios, terminal equipment at 4 sites, and 52 miles of optical shield wire.</li> </ul>			
C Transmission System Improvements			
<ul style="list-style-type: none"> <li>- No system improvements are planned.</li> </ul>			
C Capital Equipment not related to construction	\$33	\$765	\$430
<ul style="list-style-type: none"> <li>- Replace vehicles, tractors, trailers, and heavy equipment used for maintenance and repair of transmission system equipment and facilities. Replaced 1 vehicle in FY 1997, an estimated 14 vehicles in FY 1998 including special purpose vehicles, and an estimated 10 vehicles in FY 1999. Replacements are based upon DOE and GSA usage and replacement guidelines. Southwestern is exempt from the alternative fuel vehicle requirements in the Energy Policy Act due to the small population in the geographical locations where Southwestern's maintenance offices are located.</li> </ul>			
Program Total	\$6,054	\$6,752	\$6,817

Explanation of Funding Changes from FY 1998 to FY 1999:

Transmission System Replacements: Additional substation equipment replacements, such as seven more circuit breakers and six duplex switch board relay panels, one microwave site, and nine mobile radios, are necessary for reliability due to the high risk of failure. This high risk is due to increased power load on the system and difficulty in obtaining replacements for outdated equipment. (\$1,220,000) The decreased effort in communication system replacements, such as replacement of terminal equipment at four less sites and 63 less miles of optical shield wire, is due to a critical need to replace power circuit breakers, disconnect switches and protective relays that are over 30 years old, and to a recent grounding safety assessment which indicated a need for additional grounding and surge protection. (-\$820,000)

(+\$400,000)

(- \$335,000)

Capital Equipment Not Related to Construction: According to DOE and GSA usage and replacement guidelines, four fewer vehicles are scheduled to be replaced in FY 1999.



## **SOUTHWESTERN POWER ADMINISTRATION**

### **PROGRAM DIRECTION**

#### **I. Mission Supporting Goals and Objectives**

The Program Direction activity provides overall direction and administrative support for Southwestern's Operations and Maintenance program which fulfills requirements of Section 5 of the Flood Control Act of 1944 by marketing and reliably delivering hydroelectric power in a clean, environmentally-safe, and cost-effective manner throughout a 6-state regional area. In FY 1999, Southwestern will continue to streamline the organization through the Organization 2000 Plus Initiative.

Program direction has been grouped into four categories:

Salaries and Benefits provides funding for wages, cost-of-living increases, overtime, holiday and premium pay, and incentive awards. Also includes Southwestern's share of employee retirement, health and life insurance, workers' compensation for on-the-job injuries, Federal Insurance Contribution Act taxes, and Federal retirement contributions, as required by the Federal Work Force Restructuring Act of 1994. Benefits also include relocation expenses related to permanent change of duty station, and payments for voluntary separation incentive.

Travel includes funding for the transportation of Government employees, per diem allowances, and incidental expenses incurred in the operation and maintenance of Southwestern's geographically dispersed high-voltage transmission system and administrative functions.

Support Services includes funding for contract services such as automated data processing, drafting, and general administrative support.

Other Related Expenses include funding for rental space, telecommunications, utilities and miscellaneous charges, printing and reproduction, training tuition fees, maintenance and repair of office equipment, supplies, materials, non-capitalized equipment, and a working capital fund.

In FY 1999, the Program Direction activity represents a five percent reduction from the FY 1998 level.

II. Funding Table:

Program Direction <u>a/</u> (dollars in thousands)	<u>FY 1997</u> Current Appropriation	<u>FY 1998</u> Original Appropriation	<u>FY 1998</u> Adjustments	<u>FY 1998</u> Current Appropriation	<u>FY 1999</u> Budget Request
Salaries and Benefits	\$13,417	\$11,995	\$0	11,995	\$11,829
Travel	1,044	1,010	0	1,010	705
Support Services	1,970	1,970	0	1,970	1,970
Other Related Expenses	<u>1,431</u>	<u>2,334</u>	<u>0</u>	<u>2,334</u>	<u>1,898</u>
TOTAL	<u>\$17,862</u>	<u>\$17,309</u>	<u>\$ 0</u>	<u>\$17,309</u>	<u>\$16,402</u>
Full-Time Equivalents (FTE)	175 <u>b/</u>	189			186

a/ The amounts included in Program Direction represent all salaries and benefits, all travel expenses and related personnel costs for Operations and Maintenance and Construction activities. It should be noted that this value represents not only Southwestern's administrative and /or overhead expenses, but includes direct program activity costs associated with FTE usage.

b/ Reflects actual FTE usage.

III. <u>Performance Summary:</u>	FY 1997	FY 1998	FY 1999
Salaries and Benefits:			
<p>Southwestern's Program Direction activity provides compensation and all related expenses for Federal personnel who operate and maintain Southwestern's high-voltage interconnected transmission system and associated facilities and who plan, design, and supervise the construction of replacements, upgrades, and additions (capital investments) to the transmission facilities. Also included are personnel who negotiate and administer power marketing contracts, develop wholesale power rates, develop and implement operational arrangements with competing water users, schedule and deliver power to preference customers, implement environment, safety, and health programs, and provide for general administration and management. These employees include, but are not limited to, civil, electrical, and electronic engineers; high voltage linemen and electricians; power dispatchers; public utility specialists; environmental and safety specialists; and administrative staff. Although new initiatives, FERC Order 888 and the Welfare to Work Program, will impact Southwestern's FTE usage, these new requirements will be accomplished within the authorized staffing level.</p>	\$13,417	\$11,995	\$11,829
Travel:			
<p>Travel associated with the operation and maintenance of the transmission facilities continues at approximately the same level. Other travel needs have been reduced by 30 percent due to staff reductions and video conferencing capability.</p>	\$1,044	\$1,010	\$705
Support Services:			
<p>The investment in support services continues to assure program support for Southwestern in the areas of word processing, records management, mail management, public affairs, computer programming, data processing, environmental, engineering, drafting and design. Records management improvements continue with the advent of optical imaging for management of official records. Overall support service staffing level has been reduced by three positions. In FY 1999, drafting and design and environmental and engineering support will focus on increased efforts in transmission system replacements.</p>	\$1,970	\$1,970	\$1,970

Other Related Expenses:

The activity which makes up this category supports Southwestern in the areas of rental space, telecommunications, utilities, printing, training, supplies, materials, non-capitalized equipment, and the working capital fund. FY 1999 reflects communication equipment and related training for the Supervisory Control and Data Acquisition (SCADA) system to provide better capabilities for the operation and maintenance of the transmission system. The FY 1998 and the FY 1999 amounts reflect reduced rent costs due to a new building lease. In addition, FY 1999 reflects a decrease due to efforts to reduce field offices' utility costs.	\$1,431	\$2,334	\$1,898
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<u>Total Program Direction :</u>	\$17,862	\$17,309	\$16,402
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Explanation of Funding Changes from FY 1998 to FY 1999:

<u>Salaries and Benefits:</u> Reflects reductions in FTE with a related reduction in relocation expenses.	(- \$166,000)
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<u>Travel:</u> Reflects reduction in costs related to FTE reduction, and agency efforts to reduce overall travel expenses.	(-\$305,000)
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<u>Other Related Expenses:</u> Decrease reflects savings generated by the implementation of a ten-year building lease and lower utility costs.	(-\$436,000)
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SOUTHWESTERN POWER ADMINISTRATION  
FY 1999 CONGRESSIONAL BUDGET REQUEST

SUPPORT SERVICES	FY 1997 (\$000)	FY 1998 (\$000)	FY 1999 (\$000)	FY 1999/FY 1998 CHANGE (\$000)
Technical Support Service				
Drafting and Design Support	90	90	126	36
Environmental and Engineering Support	324	255	260	5
<b>Subtotal</b>	414	345	386	41
Management Support Services				
Clerical/Records Management	120	267	232	(35)
ADP Support	1,436	1,358	1,352	(6)
<b>Subtotal</b>	1,556	1,625	1,584	(41)
<b>Total Support Services</b>	\$1,970	\$1,970	\$1,970	\$0

**DEPARTMENT OF ENERGY  
FY 1999 CONGRESSIONAL BUDGET REQUEST  
ESTIMATES FOR HISTORICALLY BLACK  
COLLEGES AND UNIVERSITIES**

**SOUTHWESTERN POWER ADMINISTRATION  
(Dollars in thousands)**

<u>Appropriation/Decision Unit</u>	<u>Name of HBCU</u> (if known)	FY1997 <u>BA</u>	FY 1998 <u>BA</u>	FY 1999 <u>Request</u>
Program Direction	(to be determined)	\$0	\$0	\$10
Subtotal		<u>\$0</u>	<u>\$0</u>	<u>\$10</u>
Southwestern,89X0303				
TOTAL		\$0	\$0	\$10

Comments:

Program Contact:  
Colin Kelley  
(918) 595-6615

**DEPARTMENT OF ENERGY**  
**FY 1999 CONGRESSIONAL BUDGET REQUEST**  
**POWER MARKETING ADMINISTRATION**  
(Dollars in Thousands)

**REVENUE AND RECEIPT REPORT**

**SOUTHWESTERN POWER ADMINISTRATION**

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Southwestern Power Administration							
Gross Revenues.....	\$106,600	\$100,036	\$98,315	\$99,379	\$99,347	\$101,990	\$101,990
Receipts:							
Net billing amt. credit back to Appro. as an offsetting receipt	\$4,200	\$4,700	\$5,100	\$5,200	\$4,900	\$4,800	\$4,800
Sale and transmission of electric energy.....	\$102,400	\$95,336	\$93,215	\$94,179	\$94,447	\$97,190	\$97,190
Energy Sales from Power Marketed (billions of kilowatt hours).	7.5	5.4	5.5	5.5	5.5	5.5	5.5

Note: FY 1998 and the outyears have been increased by roughly \$2 million to reflect the recovery of the unfunded portion of the Civil Service Retirement System and Post- Retirement Health Benefits for Southwestern and the U.S. Army Corps of Engineers power employees.

**DEPARTMENT OF ENERGY  
FY 1999 CONGRESSIONAL BUDGET REQUEST  
POWER MARKETING ADMINISTRATION  
(Dollars in Thousands)**

**REVENUE AND RECEIPT REPORT**

**SOUTHWESTERN POWER ADMINISTRATION**

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
Southwestern Power Administration					
Gross Revenues.....	\$101,990	\$101,990	\$101,990	\$101,990	\$101,990
Receipts:					
Net billing amt. credit back to Appro. as an offsetting receipt	\$4,800	\$4,800	\$4,800	\$4,800	\$4,800
Sale and transmission of					



electric energy.....	\$97,190	\$97,190	\$97,190	\$97,190	\$97,190
Energy Sales from Power Marketed (billions of kilowatt hours).	5.5	5.5	5.5	5.5	5.5

**DEPARTMENT OF ENERGY  
FY 1999 CONGRESSIONAL BUDGET REQUEST**

**SYSTEM STATISTICS**

**SOUTHWESTERN POWER ADMINISTRATION**

	<u>1997 ACTUALS</u>	<u>1998 ESTIMATE</u>	<u>1999 ESTIMATE</u>
GENERATING CAPACITY:			
INSTALLED CAPACITY (KW)	2,157,700	2,157,700	2,157,700
PEAK CAPACITY (KW)	2,092,500	2,093,500	2,093,500
GENERATING STATIONS:			
GENERATING PROJECTS (NO.)	24	24	24
SUBSTATIONS/SWITCHYARDS (NO.)	24	24	24
SUBSTATIONS/SWITCHYARDS (KVA CAPACITY)	1,026,900	1,026,900	1,026,900
AVAILABLE ENERGY:			
ENERGY GENERATED (MEGAWATT-HOURS)	7,727,726	5,141,400	5,276,900
ENERGY RECEIVED (MEGAWATT-HOURS)	53	218,000	211,900
*ENERGY AVAILABLE FOR MARKETING (MEGAWATT-HOURS)	7,727,779	5,359,400	5,488,800
TRANSMISSION LINES (CIRCUIT MILES):			
161 KV	1,117	1,117	1,117
138 KV	164	164	164

**DEPARTMENT OF ENERGY  
FY 1999 CONGRESSIONAL BUDGET REQUEST**

**SYSTEM STATISTICS**

**SOUTHWESTERN POWER ADMINISTRATION**

	1997 <u>ACTUALS</u>	1998 <u>ESTIMATE</u>	1999 <u>ESTIMATE</u>
TRANSMISSION LINES (CIRCUIT MILES):			
69 KV	<u>99</u>	<u>99</u>	<u>99</u>
TOTAL CIRCUIT MILES	1,380	1,380	1,380

**DEPARTMENT OF ENERGY  
1999 CONGRESSIONAL BUDGET REQUEST  
POWER MARKETED, WHEELED, OR EXCHANGED BY PROJECT**

**SOUTHWESTERN POWER ADMINISTRATION**

PROJECT	<u>STATE</u>	<u>NO.OF PLANTS</u>	<u>INSTALLED CAPACITY (KW)</u>	<u>1997 ACTUAL ENERGY (GWH)</u>	<u>1998 ESTIMATED ENERGY (GWH)</u>	<u>1999 ESTIMATED ENERGY (GWH)</u>
POWER MARKETED						
(INTERCONNECTED SYSTEM)	MISSOURI	4	463200	2334	1661	1702
	ARKANSAS	9	1021100	1209	860	882
	OKLAHOMA	7	514100	1627	1157	1186
	TEXAS	2	100000	951	677	693
	LOUISIANA			542	386	395
	KANSAS	—	—	<u>656</u>	<u>466</u>	<u>479</u>
SUBTOTALS		22	2098400	7319	5207	5337
ISOLATED						
ROBERT D WILLIS PROJECT <u>1/</u>						
SAM RAYBURN PROJECT	TEXAS	2	59400	32	76	76
50% TO TX; 50% TO LA	LOUISIANA			115	76	76
		—	—	—	—	—
SUBTOTALS		2	59400	148	152	152
		—	—	—	—	—

1/ FORMERLY TOWN BLUFF PROJECT, ON-LINE DATE, DECEMBER 1, 1989

**DEPARTMENT OF ENERGY**  
**1999 CONGRESSIONAL BUDGET REQUEST**  
**POWER MARKETED, WHEELED, OR EXCHANGED BY PROJECT**

**SOUTHWESTERN POWER ADMINISTRATION**

PROJECT	<u>STATE</u>	<u>NO.OF PLANTS</u>	<u>INSTALLED CAPACITY (KW)</u>	<u>1997 ACTUAL ENERGY (GWH)</u>	<u>1998 ESTIMATED ENERGY (GWH)</u>	<u>1999 ESTIMATED ENERGY (GWH)</u>
TOTAL, POWER MARKETED		24	2157800	7467	5359	5489
POWER WHEELED AND EXCHANGED						
WHEELED (MW)				575	491	494
EXCHANGED (GWH)				91	121	137